Amendments to the Drawings:

The attached drawing sheet includes changes to Figure 2. Figure 2 has been amended to reflect the designation of "Prior Art." This sheet, which includes Figure 2, replaces the original sheet including Figure 2.

Attachment: Replacement Sheet

REMARKS

The Official Action mailed March 9, 2009, has been received and its contents carefully noted. Filed concurrently herewith is a *Request for Two Month Extension of Time*, which extends the shortened statutory period for response to August 9, 2009. Accordingly, the Applicant respectfully submits that this response is being timely filed.

The Applicant notes with appreciation the consideration of the Information Disclosure Statements filed on April 27, 2006; July 25, 2006; and February 7, 2008.

Claims 1-40 are pending in the present application, of which claims 1 and 20 are independent. Claims 18, 25, 28, 33, 37, 39 and 40 have been amended to better recite the features of the present invention. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraph 2 of the Official Action objects to Figure 2 as lacking a designation such as "Prior Art." As required by the Official Action, the Applicant has amended Figure 2 to include the designation "Prior Art," as shown in the attached replacement sheets. Reconsideration is requested.

Paragraph 3 of the Official Action objects to the title as not descriptive. The Applicant notes that the objection to the title does not specifically explain why the title, "LIGHT EMITTING ELEMENT AND LIGHT EMITTING DEVICE" is not descriptive. It is noted that the preamble of each claim recites a "light-emitting element." In any event, in response, the title has been changed to "LIGHT-EMITTING ELEMENT," which is more consistent with the preamble of each of the present claims. If the presently amended title is not sufficiently descriptive, then the Applicant respectfully requests that the Examiner further clarify why the title is not descriptive or, if possible, suggest a title believed to be sufficiently descriptive. Reconsideration of the objection is requested.

Paragraph 4 of the Official Action suggests changing "shot circuit" to "short circuit" and paragraph 6 of the Official Action suggests changing "a second electrode 817" to "a second electrode 816." In response, the specification has been amended in accordance with the Examiner's suggestion.

Paragraph 5 of the Official Action notes an inconsistency in the disclosure at page 9 as follows: "FIG. 2 is a diagram illustrating the structure of a conventional light-emitting element according to the present invention." In response, the phrase "according to the present invention" has been removed from the specification to make clear that Figure 2 illustrates a conventional light-emitting element.

Paragraph 7 of the Official Action requests the Applicant's cooperation in correcting any errors of which the Applicant may become aware in the specification. In response, the specification has been amended to correct minor typographical informalities. If the Examiner has any further specific concerns regarding the specification, the Applicant respectfully requests that the Examiner bring them to the attention of the Applicant in a future communication. The Applicant will correct any further errors in the specification of which the Applicant becomes aware.

Paragraph 11 of the Official Action rejects claims 1-8, 10-12, 14-16 and 39 as obvious based on the combination of JP 2000-306669 to Akihiro; Tokito, "Metal Oxides as a hole-injecting layer for an organic electroluminescent device," J. Phys. D: Appl. Phys. 29 (1996) 2750-2753; and Tanaka, "Organic EL Device Using SrO_x as an Electron Injection Material," Electronics and Communications in Japan, Part 2, Vol. 86, No. 7, 2003, pp. 73-80. Paragraph 28 of the Official Action rejects claims 9, 13 and 17-19 as obvious based on the combination of Akihiro, Tokito, Tanaka and U.S. Publication No. 2005/0123751 to Tsutsui. Paragraph 32 of the Official Action rejects claims 20-38 and 40 as obvious based on the combination of Akihiro, Tokito, Tanaka and Tsutsui. The Applicant respectfully traverses the rejection because the Official Action has not made a *prima facie* case of obviousness.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or

references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some reason to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims. Independent claims 1 and 20 recite a third layer between a second layer and the second electrode, the third layer including a third organic compound and a third inorganic compound that exhibits an electron donating property to the third organic compound. For the reasons provided below, Akihiro, Tokito, Tanaka and Tsutsui, either alone or in combination, do not teach or suggest the above-referenced features of the present invention.

The Official Action concedes that Akihiro fails to disclose that the third inorganic compound exhibits an electron donating property to the third organic compound but asserts that Tanaka discloses "a metal oxide used as an electron injection material in order to improve the device luminance and lifetime" (Paper No. 20090218, page 4). The Applicant respectfully disagrees and traverses the above assertion of the Official Action.

Tanaka at page 77, second column, lines 9-18, describes the following (emphasis added):

> ... It was observed that the insertion of the SrO_x layer reduced the number of dark spots probably **because the SrO_x layer stabilized the adhesion of Al electrode to the Alq layer.** The longer lifetime was accomplished **by improvements in the Alq/Al interface characteristics** such as the electron injection and metal-organic adhesion. These effects can work

> effectively even under an inert gas atmosphere. Therefore, further improvement in lifetime is expected by using the SrO_x/Al electrode compared to the monolithic aluminum electrode.

According to the result of the experiments of Tanaka, when the thickness of the SrO_x layer was greater than 5 nm, the luminance was getting lower, as shown in Figure 4. Furthermore, Tanaka discloses the following: "... This result indicates that the device luminance decreases when the Alq surface was completely covered with SrO_x due to **the high resistivity of SrO_x** ..." (page 76, first column, lines 18-21, emphasis added).

That is, Tanaka merely shows that the SrO_x layer stabilized the adhesion of the Al electrode to the Alq layer, which improves electron injection between an Alq layer (which is a light emitting/electron transporting layer) and an Al layer (a cathode). However, it is respectfully submitted that Tanaka does not teach that its device implements SrO_x as an electron injection material.

Therefore, the Applicant respectfully submits that Akihiro and Tanaka, either alone or in combination, do not teach or suggest a third layer between a second layer and the second electrode, said third layer including a third organic compound and a third inorganic compound that exhibits an electron donating property to the third organic compound.

Tokito and Tsutsui do not cure the deficiencies in Akihiro and Tanaka. The Official Action relies on Tokito to allegedly teach a first inorganic compound that exhibits an electron accepting property to the first organic compound, and on Tsutsui to allegedly teach "a layer that exhibits both electron accepting and donating properties by mixing a low work function inorganic compound and a high work function inorganic compound in an organic matrix" (Id., page 9). However, Akihiro, Tanaka, Tokito and Tsutsui, either alone or in combination, do not teach or suggest a third layer between a second layer and the second electrode, the third layer including a third organic compound and a third inorganic compound that exhibits an electron donating property to the third organic compound. Since Akihiro, Tanaka, Tokito and Tsutsui do not teach or

suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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